

REMARKS

This application has been carefully reviewed in light of the Office Action dated September 30, 2009. Claims 1 to 9 are in the application, with Claims 1, 2 and 7 being independent. Reconsideration and further examination are respectfully requested.

Claims 1 to 9 were objected to for various informalities. Without conceding to the correctness of the objections, Claims 1 to 9 have been amended herein, and the amendments are believed to attend to the objections. Accordingly, reconsideration and withdrawal of these objections are respectfully requested.

Claim 9 was rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the enablement requirement. Without conceding to the correctness of the rejection, Claim 9 has been amended herein. Furthermore, Applicant respectfully submits that, as described throughout the specification, a printer is an example of a wireless communication apparatus. In addition, as described in the specification at page 32 with reference to Figure 7, digital camera 104 displays information which is indicative of printers determined to have a desired function on user interface 303, which is shown in Figure 3. Using user interface 303, the user selects a printer from the displayed printers. Thus, Applicant respectfully submits that Claim 9 fully complies with the enablement requirement. Reconsideration and withdrawal of this rejection are respectfully requested.

Claims 1, 2, 4, 6, 7 and 9 were rejected under 35 U.S.C. § 103(a) over U.S. Publication No. 2004/0125778 (Lin), in view of U.S. Patent No. 6,477,384 (Schroderus).

Claims 3 and 8 were rejected as being unpatentable over Lin and Schroderus and further in view of U.S. Patent No. 7,327,385 (Yamaguchi). Reconsideration and withdrawal of these rejections are respectfully requested.

The present claims concern communication between first and second wireless communication apparatuses. The first communication wireless apparatus is configured to communicate in a first communication mode in which communication is performed via a base station and a second communication mode in which communication is performed directly with the second wireless communication apparatus. The second wireless communication apparatus is configured to wirelessly communicate with the first wireless communication apparatus.

According to one aspect of the claims, it is determined whether a desired function is possessed by the first or second wireless communication apparatus through a connection in the second communication mode. When it is determined that the first or second wireless communication apparatus possesses the desired function, data is communicated between the second wireless communication apparatus and the first wireless communication apparatus in the second communication mode. On the other hand, when it is determined that the first or second wireless communication apparatus does not possess the desired function, the communication mode of the first communication apparatus is switched to the first communication mode.

According to another aspect, it is determined if a predetermined function is executable in the second wireless communication apparatus through the connection in the second communication mode with the second wireless communication apparatus. When it

is determined that the predetermined function is executable in the second wireless communication apparatus, data which is transmitted in the second communication mode is received. On the other hand, when it is determined that the predetermined function is not executable in the second wireless communication apparatus, the communication mode of the first wireless communication apparatus is switched to the first communication mode.

According to another aspect, it is determined if a predetermined function is executable in the first wireless communication apparatus through a connection in the second communication mode, and when it is determined that the predetermined function is executable in the first wireless communication apparatus, data is transmitted to the first wireless communication apparatus. On the other hand, when it is determined that the predetermined function is not executable in the first wireless communication apparatus, a signal which includes information indicative of communicating in the second communication mode is re-transmitted for connecting with a third wireless communication apparatus other than the first wireless communication apparatus.

For example, as discussed in the specification beginning at page 16, Figure 4 shows processing performed by the first wireless communication apparatus (i.e., the printer 103). As shown in Figure 4, at step S403 the first wireless communication apparatus is connected to the second wireless communication apparatus in the second communication mode. After the connection in the second communication mode is established, a function search is performed in step S404. Additionally, as discussed in the specification beginning at page 24, Figure 6 shows processing performed by the second wireless communication apparatus (i.e., the digital camera 104). As shown in Figure 6, the

second wireless communication apparatus transmits a beacon in the second communication mode at step S601. After the first wireless communication apparatus is connected to the second wireless communication apparatus in the second communication mode in step S403 of Figure 4, control proceeds to step S602 in Figure 6, where a function search similar to the one performed by the first wireless communication apparatus is performed.

Thus, the function search is performed after the second communication mode has been established between the first and second wireless communication apparatuses.

Of course, the claims are not limited by the embodiment described in the specification.

Referring specifically to claim language, amended independent Claim 1 is directed to a communication control method for controlling communication between a first wireless communication apparatus and a second wireless communication apparatus. The first wireless communication apparatus is configured to communicate wirelessly in a first communication mode in which communication is performed via a base station and a second communication mode in which communication is performed with a wireless communication apparatus directly. The second wireless communication apparatus is configured to communicate wirelessly in the second communication mode. The method includes a connecting step of establishing a connection between the first wireless communication apparatus and the second wireless communication apparatus in the second communication mode, in response to a search signal from the second wireless communication apparatus received by the first wireless communication apparatus during

communication by the first wireless communication apparatus in the first communication mode, the signal giving notification of the existence of the second wireless communication apparatus.

The method further includes a determining step of determining, by one of the first or second wireless communication apparatus, whether the other of the first or second wireless communication apparatus possesses a desired function through the connection in the second communication mode established in the connecting step. The method also includes a data communicating step of communicating data between the second wireless communication apparatus and the first wireless communication apparatus in the second communication mode when it is determined that the other of the first or second wireless communication apparatus possesses the desired function at the determining step. The method additionally includes a switching step of switching, by the first wireless communication apparatus, the communication mode of the first wireless communication apparatus to the first communication mode when it is determined that the other of the first or second wireless communication apparatus does not possess the desired function.

The applied art, alone or in any permissible combination, is not understood to disclose or suggest all of the features of Claim 1. In particular, none of Lin, Schroderus and Yamaguchi are seen to disclose or suggest at least (i) determining whether a desired function is or is not possessed by the first or second wireless communication apparatus through the connection in the second communication mode, (ii) communicating data between the second wireless communication apparatus and the first wireless communication apparatus in the second communication mode when it is determined that

the other of the first or second wireless communication apparatus possesses the desired function, and (iii) switching the communication mode of the first wireless communication apparatus to the first communication mode when it is determined that the first or second wireless communication apparatus does not possess the desired function.

Lin discloses a method for improving transmission efficiency of a wireless local area network by using a WLAN neighbors establishing procedure and a high efficiency transmission mode establishing procedure. The high efficiency transmission mode establishing procedure causes stations to disassociate with an access point in a power save mode and to switch from an infrastructure mode to an ad-hoc mode for transmitting data. According to Figure 6 of Lin, a second station 202 receives a request to establish the high efficiency transmission mode in step S601. In step S603, in order to determine whether to accept the request, second station 202 requests authentication information from first station 201. After receiving the authentication information and determining that the information is correct in step S605, the second station 202 sends back a reply establishing the high efficiency transmission mode in step S606. Subsequently, the second station 202 is switched to ad-hoc mode in step S608, using the frequency and service set identifier retrieved in step S607.

Thus, as understood by Applicant, because second station 202 sends the request for authentication information to first station 201 in step S603, before the ad-hoc mode is established in step S608, it is believed that the request for authentication information and the reply by the second station 202 both occur in infrastructure mode.

In contrast, Claim 1 recites determining whether the first or second wireless communication apparatus possesses a desired function through the connection in the second communication mode.

Furthermore, since Lin is not seen to disclose or suggest (i) determining whether a desired function is or is not possessed by the first or second wireless communication apparatus through the connection in the second communication mode, Lin cannot be seen to disclose or suggest (ii) communicating data between the second wireless communication apparatus and the first wireless communication apparatus in the second communication mode when it is determined that the first or second wireless communication apparatus possesses the desired function, and (iii) switching the communication mode of the first wireless communication apparatus to the first communication mode when it is determined that the first or second wireless communication apparatus does not possess the desired function.

Schroderus discloses a method of checking the presence of mobile stations communicating on a direct mode channel. According to Schroderus, a first station sends a presence inquiry message to a second station on the direct channel. However, Schroderus is not seen to disclose or suggest at least (i) determining whether a desired function is or is not possessed by the first or second wireless communication apparatus through the connection in the second communication mode, (ii) communicating data between the second wireless communication apparatus and the first wireless communication apparatus in the second communication mode when it is determined that the first or second wireless communication apparatus possesses the desired function, and (iii) switching the

communication mode of the first wireless communication apparatus to the first communication mode when it is determined that the first or second wireless communication apparatus does not possess the desired function.

Yamaguchi has been studied but is not seen to overcome the deficiencies of Lin and Schroderus.

Accordingly, the applied art is not seen to disclose or suggest at least (i) determining whether a desired function is or is not possessed by the first or second wireless communication apparatus through the connection in the second communication mode, (ii) communicating data between the second wireless communication apparatus and the first wireless communication apparatus in the second communication mode when it is determined that the first or second wireless communication apparatus possesses the desired function, and (iii) switching the communication mode of the first wireless communication apparatus to the first communication mode when it is determined that the first or second wireless communication apparatus does not possess the desired function.

In light of the deficiencies of the applied art, Applicant respectfully submits that Claim 1 is in condition for allowance and respectfully requests the same.

Amended independent Claim 2 is directed to a first wireless communication apparatus configured to communicate with a second wireless communication apparatus in a first communication mode in which communication is performed via a base station and a second communication mode in which communication is performed with the second wireless communication apparatus directly. The first wireless communication apparatus includes receiving means for receiving a signal from the second wireless communication

apparatus giving notification of the existence of the second wireless communication apparatus, during communication in the first communication mode. The first wireless communication apparatus also includes connecting means for making a connection to the second wireless communication apparatus in the second communication mode based upon information contained in the signal received by the receiving means.

The first wireless communication apparatus additionally includes determining means for determining if a predetermined function is executable in the second wireless communication apparatus through the connection in the second communication mode with the second wireless communication apparatus made by the connecting means. The first wireless communication apparatus further includes data receiving means for receiving data, which is transmitted in the second communication mode when it is determined by the determining means that the predetermined function is executable in the second wireless communication apparatus. The first wireless communication apparatus also includes switching means for switching the communication mode of the first wireless communication apparatus to the first communication mode when it is determined by the determining means that the predetermined function is not executable in the second wireless communication apparatus.

The applied art, alone or in any permissible combination, is not understood to disclose or suggest all of the features of Claim 2. In particular, none of Lin, Schroderus and Yamaguchi are seen to disclose or suggest at least (i) determining if a predetermined function is executable in the second wireless communication apparatus through the connection in the second communication mode, (ii) receiving data, which is transmitted in

the second communication mode when it is determined that the predetermined function is executable in the second wireless communication apparatus, and (iii) switching the communication mode of the first wireless communication apparatus to the first communication mode when it is determined that the predetermined function is not executable in the second wireless communication apparatus.

Amended independent Claim 7 is directed to a second wireless communication apparatus configured to wirelessly communicate with a first wireless communication apparatus which is configured to communicate in a first communication mode in which communication is performed via a base station and a second communication mode in which communication is performed directly between wireless communication apparatuses. The second wireless communication apparatus includes transmitting means for transmitting a signal which includes information indicating that the second wireless communication apparatus is communicating in the second communication mode, to the first wireless communication apparatus that is communicating in the first communication mode.

The second wireless communication apparatus also includes determining means for determining if a predetermined function is executable in the first wireless communication apparatus through a connection in the second communication mode to the first wireless communication apparatus which has been made in response to the signal. The second wireless communication apparatus further includes data transmitting means for transmitting data to the first wireless communication apparatus when it is determined by the determining means that the predetermined function is executable in the first wireless

communication apparatus. The second wireless communication apparatus additionally includes re-transmitting means for re-transmitting the signal which includes information indicative of communicating in the second communication mode for connecting with a third wireless communication apparatus other than the first wireless communication apparatus when it is determined by the determining means that the predetermined function is not executable in the first wireless communication apparatus.

The applied art, alone or in any permissible combination, is not understood to disclose or suggest all of the features of Claim 7. In particular, none of Lin, Schroderus and Yamaguchi are seen to disclose or suggest at least (i) determining if a predetermined function is executable in the first wireless communication apparatus through the connection in the second communication mode, (ii) transmitting data to the first wireless communication apparatus when it is determined that the predetermined function is executable in the first wireless communication apparatus, and (iii) re-transmitting the signal which includes information indicative of communicating in the second communication mode for connecting with a third wireless communication apparatus other than the first wireless communication apparatus when it is determined that the predetermined function is not executable in the first wireless communication apparatus.

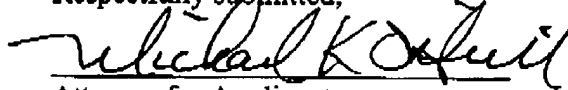
The other claims in the application are each dependent from the independent claims and are believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

Turning finally to a formal matter, it is respectfully requested that the next Office Action indicate consideration of the Information Disclosure Statement dated September 21, 2009.

No other matters being raised, it is believed that the entire application is fully in condition for allowance, and such action is courteously solicited.

Applicant's undersigned attorney may be reached in our Costa Mesa California office by telephone at (714) 540-8700. All correspondence should continue to be directed to our address given below.

Respectfully submitted,



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